# Internet Architecture Detailed Selection Criteria

This document is to be used as a tool to evaluate products for potential use at the Department of Education. This page describes how the tool is used to perform the evaluation.

1	2	3	4	5	6	7	8	9	10	11	12	13	14
Architecture													
Selection Criteria			WEIGHT	Weight Value	IBM		STC		Vitria		MSI Solutions		Total Possible
					Score	Weighted Score	Score	Weighted Score	Score	Weighted Score	Score	Weighted Score	
Architectural Approach	Hub-and-Spoke		M	1	5	5	0	0	0	0	1	1	5
	Bus		H	1.5	0	0	5	7.5	1	1.5	0	0	7.5
	Internet-Based Communications		M	1	5	5	5	5	5	5	1	1	5
	Distributed		M	1	3	3	5	5	5	5	3	3	5
Scalability	High Volumes--Small Messages		H	1.5	5	7.5	5	7.5	5	7.5	3	4.5	7.5
	High Volumes--Complex messages (real time)		H	1.5	3	4.5	5	7.5	5	7.5	3	4.5	7.5
	High Volumes--Complex Messages in (Batch)		M	1	5	5	5	5	5	5	3	3	5
	Low Volumes--Complex Messages		M	1	5	5	5	5	5	5	3	3	5
					31	35	35	42.5	31	36.5	17	20	47.5
		Percent				73.68%		89.47%		76.84%		42.11%	100.00%

The following pages include matrices like the one on the left which are used to evaluate products based on the services that they provide. The services are listed in columns 1 - 3 as the selection criteria.

In order for the evaluation to reflect the specific requirements of the Student Financial Assistance, each criteria was assigned a weight, which enables us to focus the evaluation on what is most important. The relative weight is assigned in column 4 as High (H), Medium (M), or Low (L), and the associated numeric value is seen in column 5 (values for H, M, and L are assigned on the Values tab of the electronic copy of this document).
The products are then evaluated in the "Score" column (6, 8, 10, and 12 above). The values used to score the products range from 0 - 5, with 5 being full support and 0 being no support. The values assigned each product are based on product research, discussions with the vendors, and previous experience with the products.
A weighted score for each criteria is calculated by multiplying the product "Score" by the selection criteria weight value (column 5). The total score for each product is summed at the bottom of column. The total weighted score is compared to the highest possible score totaled in column 14 to determined a rating for each product in the category being evaluated. The percentages are used to translate the score into a graphical rating, as shown below.
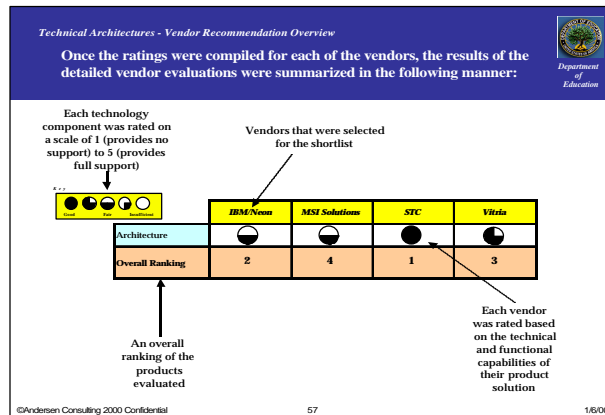
The rating of how well each product meets that evaluation criteria is represented using filled circles, with a fully darkened circle meaning full support and an empty circle meaning little to no support. The translation of percentages to filled circle is specified by the evaluation team. For the EAI evaluation, the mapping is found on the Values tab of this document.
Evaluation results are included in the Recommended Application Architecture Standards document delivered to the Department of Education on Jan 7th, 2000.